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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,169	09/30/2003	Masao Fujiki	04329.3152	9806

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EXAMINER

OLSON, JASON C

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,169

Applicant(s)

FUJIKI ET AL.

Examiner

Jason C. Olson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the Amendment filed on 04/05/05

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (US 6,771,449) hereafter Ito and Huang et al. (US 2003/0035281) hereafter Huang.

Regarding claim 1, Ito teaches a disk device having a head (see col. 3, ln. 61-67), a sensor which detects a fall (see col. 3, ln. 53-60), a control unit configured to control the disk device to move the head to an unload area (see col. 4, ln. 3-5) when the sensor detects the fall (see col. 6, ln. 39-50), but fails to teach a shock-absorbing unit configured to absorb a shock to the disk drive device before the head reaches the unload area. However, Huang is relied upon to teach a shock-absorbing unit configured to absorb a shock to the disk drive device at all times (see paragraph [0020], paragraph [0022] and paragraph [0025]; it is obvious to an artisan in the art that because the shock absorption module is configured to absorb a shock to the disk drive at all times, it will absorb a shock to the drive before the head reaches the unload area). It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon the shock absorption of the disk drive of Ito by applying the teaching of a shock absorption module to absorb external shocks to the drive as taught by Huang for the purpose as stated by Huang in paragraph [0004] and paragraph [0007].

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Regarding claim 2, the combination of Ito and Huang teach all the limitations of claim 1 above. The combination is further relied upon to teach the device is a magnetic device, and the head is a magnetic head (see col. 3, ln. 61-67 of Ito).

Regarding claim 20, the combination of Ito and Huang teach all the limitations of claim 1 above. The combination is further relied upon to teach the control unit using a signal that is independent from commands that are processed by the disk device in an order which they are accepted (see col. 6, ln. 39-50 of Ito; it is interpreted by the examiner that the inner circuit controls the retracting of the heads in the device using a signal which is independent from commands that are processed by the device in order to retract the head immediately upon detection of a continuous falling state).

Regarding claims 3 the combination of Ito and Huang teach all the limitations of the claims above. The combination is further relied upon to teach the signal is a reset signal of an interface standard with which the disk device complies (see col. 6, ln. 39-50 of Ito; it is understood by the examiner that Ito teaches a reset signal as described by the applicant on page 12, lines 13-18 of the instantaneous specification).

Regarding claim 4, the combination of Ito and Huang teach all the limitations of the claims above. The combination is further relied upon to teach Ito teaches an independent signal line configured to exchange the signal (see figure 11 of Ito, the inner circuit has an independent line to transport an independent signal), and wherein the control unit transmits the signal to the disk device via the independent signal line (see col. 6, ln. 39-50 of Ito).

Regarding claim 5, the combination of Ito and Huang teach all the limitations of claim 1 above. The combination is further relied upon to teach a shock-absorbing unit which absorbs a

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shock that acts upon falling from a height (h) when a time required to move the head to the unload area under the control of the control unit is given by a falling time (t), satisfies an active-time shockproof specification of the disk device (see col. 5, ln. 29-46 of Ito; it is understood by the examiner that Ito teaches an active-time shockproof specification as described by the applicant on page 8, lines 15-20 of the instantaneous specification).

Regarding claims 6 the combination of Ito and Huang teach all the limitations of claims above. The combination is further relied upon to teach the relationship between the falling time (t) and the height (h) is defined by: $t = (2h/G)^{1/2}$ (G: gravitational acceleration) (see col. 5, ln. 47-67 of Ito; it is obvious to an artisan in the art that the relationship between falling time and the height can be manipulated as described by Ito).

Regarding claim 7, the combination of Ito and Huang teach all the limitations of claim 1 above. The combination is further relied upon to teach the sensor is an agravity sensor using a mechanical switch, which is opened, in an agravity state (see col. 4, ln. 16-24, figures 3 and 4 of Ito; it is understood by the examiner that Ito teaches an agravity sensor as described by the applicant on page 10, lines 4-6 of the instantaneous specification).

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection. The applicant has amended claim 1 to include the limitation, "a shock-absorbing unit configured to absorb a shock to the disk device before the head reaches the unload area.." and argues that the reference of Ito does not teach or disclose this

limitation. The examiner is relying upon Huang to teach the added limitation in combination with Ito. The rejection of claims 1-7 and new claim 20 stand.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason C. Olson whose telephone number is (571)272-7560. The examiner can normally be reached on Monday thru Thursday 7:30-5:30; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (571)272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCO

May 23, 2005

A handwritten signature in black ink, appearing to be 'JCO', located to the right of the date.A handwritten signature in black ink, appearing to be 'DAVID HUDSPETH', located above the printed name.

DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600